

REMARKS

Claims 14 and 15 have been converted from dependent form into independent form. This change in form does not narrow or limit claims 14 and 15.

Claims 1 and 5 were rejected under 35 U.S.C. §102(b) as being anticipated by Fluegel (US 5,702,073). The examiner is requested to reconsider this rejection.

Claim 1 has not been amended above. In Fluegel (US 5,702,073) a heat exchanger is applied internal to an aircraft skin so as to conduct heat outside the aircraft. The examiner states "While first section 20 doesn't close an access opening, it is adapted to so." However, Fluegel does not "**anticipate**" the features of claim 1.

Fluegel's invention is clearly a device created not to have an access opening. Its very design implies a benefit in not having to interrupt the semimonocoque structure of an aircraft by cutting openings through it which would introduce weaknesses to the structure. In addition, the "arcuate" nature of the heat spreader is clearly only meant to bear against another plate (aircraft skin) of odd shape so as to have a most intimate contact for best conductive heat transfer. This arcuate implies that it is never meant to close an access opening, but bear against another member. The very nature of how this device exchanges heat, depicted and described throughout Fluegel, indicates that the access needed to install the heat exchanger and device is from the inside of the aircraft against another surface; not with the sense of

closing an opening. Why have the arcuate feature when you could apply the tubing directly to the access panel?

The examiner is directed to MPEP 2131. Anticipation requires that **each and every element** of the claimed invention be disclosed in a single prior art reference (emphasis added). In re Paulsen, 30 F.3d 1475, 31 USPQ2d 1671, 1673 (Fed. Cir. 1994). Anticipation requires **identity** of the claimed invention (emphasis added). Tyler Refrigeration v. Kysor Indus. Corp., 777 F.2d 687, 227 USPQ 845 (Fed. Cir. 1985). For anticipation, there must be **no difference** between the claimed invention and the reference disclosure (emphasis added). Scripps Clinic & Res. Found. V. Genentech, Inc., 927 F.2d 1565, 18 USPQ2d 1001 (Fed. Cir. 1991). The corollary of the rule is that absence from the reference of any claimed element negates anticipation. Kloster Speedsteel AB v. Crucible, Inc., 793 F.2d 1565, 230 USPQ 81 (Fed. Cir. 1986).

In the present case, there is no **identity** between the cited reference and the features of claim 1. In the present case, **each and every element** of the claimed invention is not disclosed in the cited reference. In the present case, there are **differences** between the claimed invention and the reference disclosure.

The examiner indicated that he believed the term "adapted to be attached at an exterior surface of an aircraft to close an access opening through the exterior surface" is merely intended use. This is incorrect. It is a structural limitation expressed in functional terms. The examiner is directed to MPEP §2173.05(g). A function limitation is an

attempt to define something by what it does, rather than by what it is. There is nothing inherently wrong with defining some part of an invention in functional terms. A functional limitation **must be evaluated and considered**, just like any other limitation of the claim.

Because the term "adapted to be attached at an exterior surface of an aircraft to close an access opening through the exterior surface" is present in claim 1, and because it is a structural limitation, the cited reference does not "anticipate" claim 1. The examiner is requested to reconsider his rejection of claim 1.

In regard to claim 5, the examiner states "As to claim 5, the tube "passes" of second section 14 of Fluegel when this section has "flattened sides" (see column 4, line 7 of Fluegel) are considered to be fins". However, the flattened sides are clearly meant to increase the conducted heat to another piece of rigid material that is absorbing the heat. From Fluegel "...or may have flattened sides due to heat transfer considerations." implies that flattening these surfaces is meant to decrease the contact resistance and increase the contact area to the mating part. Fluegel's use of liquid or phase change media pumped through the tubing and conducting the heat to the aircraft skin is counter to using extended surfaces in a convection heat transfer design. The present invention, on the other hand, can use fins in the sense of forced convection and conducting the heat directly to the air outside of the aircraft. The claim that these flattened tubing are fins in the sense of forced convection heat transfer fins does not seem correct.

Appl. No.: 10/656,695
Reply to Office Action of: 12/02/2004

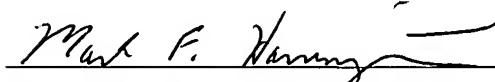
Claim 13 has been cancelled without prejudice and its features have been added to claim 11. It is believed that claim 11 is now in condition for allowance.

Claims 21 and 22 have been cancelled without prejudice and their features have been added to claim 20. It is believed that claim 20 is now in condition for allowance.

Claim 27 has been amended to add a feature similar to claim 22. It is believed that claim 27 is now in condition for allowance.

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record. Accordingly, favorable reconsideration and allowance is respectfully requested. Should any unresolved issue remain, the examiner is invited to call applicants' attorney at the telephone number indicated below.

Respectfully submitted,



Mark F. Harrington (Reg. No. 31,686)

2/28/05
Date

Customer No.: 29683

Harrington & Smith, LLP
4 Research Drive
Shelton, CT 06484-6212
203-925-9400

CERTIFICATE OF MAILING

Appl. No.: 10/656,695

Reply to Office Action of: 12/02/2004

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail on the date shown below in an envelope addressed to: Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

2/28/2005
Date

Elaine F. Mason
Name of Person Making Deposit